## THE RAILROAD AND WHAT CAME WITH IT.

1868-1871.

The Iron Horse Approaching.—The all-prevailing topic at the time now touched in this narrative, was the coming of the railroad. Since January, 1863, the great iron highway, which was destined to work so many changes in the West, had been in course of construction, and was rapidly approaching from two directions the Valley of the Great Salt Lake. Utah, joining California and the East, was about to take hold of the mighty enterprise, and help it across the borders of her mountain-girt domain.

The Act of Congress authorizing the Pacific Railroad had been signed by President Lincoln on the 1st of July, 1862. The Government of the United States proposed by this legislation to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and secure to itself the use of the same for postal, military, and other purposes. The assistance offered to the builders of the road was a loan of Federal bonds for thirty years, and a gift of twenty million acres of land. Each bond was for a thousand dollars, and sixteen bonds were to be lent for each mile completed. The land to be given was on each side of the proposed railroad. Subsequently Congress offered still greater inducements, and enough private capital was finally invested to carry forward the titanic work.\*

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Union Pacific and Central Pacific.—The Act of 1862 created the Union Pacific Railroad Company, which built the line westward from Omaha; that point having been designated by President Lincoln as the eastern terminus of the great highway. The Central Pacific Railroad Company, which was already in existence, constructed the western division and shared in the advantages of the Government contract. This company had been organized in 1861, under a general law of the State of California.

At Sacramento, on January 8, 1863, and at Omaha, on December 2nd of the same year, ground was broken for the gigantic enterprise. Later there was some discouragement and delay, but after the increase of the subsidy granted by the Government the work made rapid strides to completion. Probably twenty-five thousand men, with six thousand teams, were employed on the Union Pacific and Central Pacific lines, as they advanced to meet each other on the shores of "America's Dead Sea."

Stupendous efforts were put forth by the competing companies to determine how far east or west of the Great Salt Lake each would be able to extend its track before meeting that of the rival road; the aim being, of course, to secure as large a share as possible of the Government subsidy. It therefore became an object to secure assistance from the people of Utah. The question as to whether the railroad would pass north or south of the Lake was also an important one, especially to Salt Lake City. Here, on the 10th of June, 1868, a mass meeting was held in the big Tabernacle, with a view to influencing the choice of the southern route and the building of the line through the Territorial capital. The decision of the engineers, however, was in favor of the northern route, and the railroad went that way.

Utah Contracts and Contractors.—President Young, who was a stockholder in the Union Pacific Company, accepted from its Superintendent of Construction a contract to grade ninety miles of road from the head of Echo Canyon westward. Three of the President's sons—Joseph A., Brigham, Jr., and John W.—acted as his agents in letting the sub-contracts.

<sup>\*</sup>A railroad from the Atlantic to the Pacific had been discussed early in the Nineteenth Century; but not until about the middle of that period was any practical scheme for its construction put forward. Asa Whitney, in a series of popular meetings and in addresses to State the Witney, agitated the question from 1844 to 1830. By that time there were railroads reaching almost as far west as the Mississippi cross the Rocky Mountains at South Pass, extending on to Vancouver Sound, with a branch running to San Francisco. It was to be built by the sale of public lands along the proposed line, and for sections, for a width of thirty miles on each side. As already related, rending the Platte River in 1847, marked out a future route for the Union Pacific. Three years after the Fioneers crossed the track plains, Senator Thomas Benton, of Missouri, introduced into Congress his Facific Railroad Hill. In March, 1852, the Governor and Legis-

lature of the Territory of Utah petitioned Congress for the construction of such a road. During 1853-1854 as many as nine railroad routes were surveyed across the continent, one of them by the ill-fated Captain Gunnison. These surveys were authorized by the Federal Government. The National Conventions of the Democratic and Republican parties, in 1856 and 1860, referred to the Pacific Railroad in their platforms, and Presidents Pierce, Buchanan and Lincoln all mentioned it in their messages to Congress.

main contractors under Brigham Young were John

Sharp and Joseph A. Young, dred men on the heavy stone work and tunnels of Weber who employed five or six hun-Canyon.

sociates. Mr. Nounnan was a Eastward from Echo Canyon a large contract was taken by Joseph F. Nounnan and as-"Gentile" banker at Salt Lake City. From him the Kimball W. Riley Judd, took sub-con-Brothers, David and Heber, and tracts and built parts of the grade along Sulphur Creek, Yellow Creek, and Bear River. then a lad of thirteen, worked for his uncle, David P. Kimball, on one of those sub-con-The writer of this History,

tracts.

cific contract taken by Utah men. was that of Ezra T. Benson, Lorin Farr, and Chauncey those points. When Ogden became, by Act of Congress, the The one great Central Pa-Wells, Nevada, into Ogden City. a distance of two hundred Fifty-three miles of their work-the part extending from Promontory to Ogden-was never used, owing to the fact that the Union Pacific reached Ogden first and pushed on to Promontory, paralleling the Central Pacific between joint terminus, the Central Pacific purchased from the Union Pacific its section of track, and abandoned the super-W. West, who constructed the road-bed from near Humboldi fluous grade built by itself. JOHN SHARP.

The Arrival at Ogden.-The arrival of the railroad at Ogden, March 8, 1869, caused a general jubilation. It was about half past eleven a. m. when the Union Pacific trackthe workmen in front, putting down the rails, and the loco-motives steaming up behind as fast as the iron path was preple, and thunder of artillery, the advent of the railroad was layers came in sight of the town, whose excited inhabitants, from every house-top or other commanding elevation, feasted their eyes upon the long-looked-for "fiery steed." On it came, there, amid raising of flags, music of bands, shouts of the peo-Three hours later the city was reached, and elebrated with joyful enthusiasm. "Hail to the Highway pared for them.

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of Nations! Utah bids you welcome!" was one of the mottoes conspicuously displayed in the official and popular gathering that greeted the arrival of "The Iron Horse."

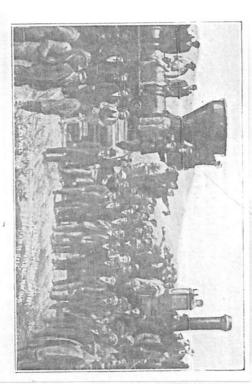
shovels leveled the road-bed, the last ties and rails were up face to face, within thirty feet of each other, and all was been effected a short time before, but the laying of two rails representatives from all parts of the country, and by noon ber 119, and Central Pacific locomotive "Jupiter," then moved ready for the closing scene of this memorable act in the miles west from Omaha, the last rail was laid, the last spike had been left for the final proceedings. Trains from both East and West brought leading railroad men and newspaper Chinese laborers on the western division having with picks and put in place-all but one rail. Union Pacific locomotive Num-The Meeting at Promontory.-The greater event of the meeting of the two roads was reserved for Monday, the 10th of May. At Promontory Summit, on the northern shore of the Great Sait Lake, 690 miles east of Sacramento, and 1085 driven, and both tracks were welded into one. A junction had eleven hundred people had assembled at Promontory.

offered the dedicatory prayer. Then came the presentation of spikes—one of gold from California, one of silver from Nevada, and one of iron, silver and gold from Arizona; all pre-President of the Central Pacific Railroad. He received the gifts in behalf of both companies, and responded with an ap-Edgar Mills, of Sacramento, read the program of ceremonies, and Reverend Dr. Todd, who was from Massachusetts, sented, with suitable speeches, to Governor Leland Stanford. Dodge spoke briefly, representing the Union Pacific Railroad. propriate address; after which General Superintendent G. M. mighty drama of modern development.

of the Central Pacific Company. The gold spike used in the a silver plate bearing the names of the officers and directors ceremony was seven inches long, and had been made from Herves, of San Francisco. Of course, none of these valuable They were preserved as relics, like the silver-plated tie, which was removed as soon as laid, and an ordinary tie substituted. It was now half past The Last Spike Driven.-The last tie upon which the rails of the two roads met was put in position by the Superintendents of Construction, S. B. Reed of the Union Pacific, California laurel, beautifully polished, and ornamented with twelve, and at a given signal Governor Stanford and Dr. T. C. Durant, a Union Pacific notable, struck the spikes and and J. H. Strowbridge of the Central Pacific. This tie was of twenty-three twenty-dollar gold pieces, the gift of David H. spikes went into the road. drove them home.

An Electrical Proclamation.—Telegraphic connection had been made in such a way that these blows were sent vibrating along the wires to every telegraph office between the Atlantic and the Pacific, and from the Great Lakes to the Gulf of Mexico. This was done by attaching the wires to the spike mauls, every blow from which announced itself as it fell. At San Francisco the wires were connected with the fire alarm in the Tower, and at Washington with the bell of the Capitol; so that the strokes of the silver sledge were not only heard throughout the land, but were sent ringing down the Potomac, and out through the Golden Gate, proclaiming the joyful news of the marriage of the oceans. The same electric flash caused the discharge of heavy guns from the batteries of San Francisco.

Salt Lake City received the tidings at thirty-two minutes past twelve. Instantly the Stars and Stripes were unfurled, brass and martial bands struck up lively airs, and artillery salutes were fired from Arsenal Hill and from the vicinity



EAST AND WEST SHAKE HANDS.

of the City Hall and the County Court House.\* A half holiday of general rejoicing followed. All towns reached by the Deseret Telegraph were notified in like manner.

\*Arsenal Hill, so named for the old militia arsenal that once stood there, was near the head of Main Street, the principal thoroughfare of Salt Lake City, and a little west of the present State Capitol. The old City Hall has become the Police Department, and the old County Court House has given way to the present County Jail.

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East and West Shake Hands.—No sooner was the last spike driven, than the pent-up feelings of the multitude witnessing the ceremony burst forth in thunderous hurrahs. Three cheers were given for the Government of the United States, three for the Pacific Railroad, three for the Presidents, three for the Star-Spangled Banner, three for the laborers, and three for those who had furnished the means to build the road. Official announcement of its completion was telegraphed to President Ulysses S. Grant, and to the Associated Press. At the conclusion of proceedings the two locomotives moved forward until they touched each other, and a bottle of wine was poured as a libation on the last rail. The Pacific Railroad was completed!

road, "The Utah Central," uniting Salt Lake City and Ogden. saw the beginning, under his direction, of the first local railthe celebration at Promontory. The same month, however Young, being in Southern Utah at the time, did not attend Groo, David O. Calder, George A. Smith, John Sharp, Brigham Young, Jr., John W. Young, William Jennings, Feramorz Little and James T. Little; all of Salt Lake City except ise respecting a branch line. The Utah Central Railroad Comtown of the Territory, he proceeded to make good his promdent that the main road would not pass through the principal the advantage of this city." When, therefore, it became eviwe will not be so far off but we can have a branch line for should deem it to their advantage to leave us out in the cold mon" leader had said: "If the company that first arrives At the Tabernacle mass meeting, in June, 1868, the topher Layton, Briant Stringham, David P. Kimball, Isaac track reached Ogden. Its organizers were Brigham Young pany was organized on the very day that the Union Pacific January 10, 1870. Joseph A. Young, George Q. Cannon, Daniel H. Wells, Chrissod; and the last spike was driven by him at Salt Lake City Ogden, May 17, 1869, President Young removing the first Mr. Layton, who lived at Kaysville. Ground was broken at The Utah Central and Other Local Lines - Presiden MIOT-

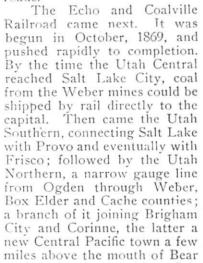
This road was built literally by the people. No large contracts were let, and those who constructed the road took stock in it for part of their remuneration. Colonel Carr, a Union Pacific officer who was present at the January celebration, referred to the Utah Central as "perhaps the only railroad west of the Missouri River that had been built entirely without Government subsidies." In all probability it would not have been built so early, had the Union Pacific Company been able to pay its Utah contractors more promptly. At the final settlement, which was delayed by lack of funds, the contractors accepted, in lieu of the same amount in cash, six

hundred thousand dollars worth of rails, locomotives, cars and other rolling stock. All this property went into the home

road, hastening its construction and equipment.

Joseph A. Young, Superintendent of the Utah Central Railroad, in his speech at the driving of the last spike, invited East, West, North and South to come up to Utah and learn of her ways. "The more our actions and works as a people are investigated," said he, "the higher we stand in the estimation of those whose good opinion is worth having." He expressed the hope that the last spike of this road would be the first of the next, extending on to "the cotton country"-Southern Utah-and that he would live to see the day when every nook and corner of the Territory capable of sustaining

human beings, would be settled by good, honest, hard-working people, and penetrated by railroads. Railroad came next. It was





JOSEPH A. YOUNG.

River. The Utah and Nevada Railway ran westward from Salt Lake City, skirting the southern shore of the Lake and turning southward around the Oquirrh Mountains. Passing through Tooele Valley, and on to Rush Valley, it fixed its terminus at Stockton.

Changes in General.-Many changes resulted from the construction of the great continental highway. Utah entered upon a new era. Her days of isolation were past. Tourists from East or West rarely failed to spend some time in "The Mormon Territory," to see the much talked of people, to survey their works, and study their institutions. Railroad and telegraph systems threw a net-work of steel and electricity

over a region formerly traversed by the slow-going ox team and the lumbering stage coach. Industry revived, values rose, and mining at length became profitable. With the inflow of capital and population, came the continued discovery and development of valuable mines, the multiplication of churches. schools and newspapers, the establishment of great business houses, and the formation of rival political parties, the first that Utah had known.

Tourist Travel.-The tide of tourist travel set in as early as the summer of 1869, while the journey from Ogden to Salt Lake City was still by stage coach or other horse-power conveyance. Among the first to cross the country by rail was Honorable Benjamin F. Wade, Ex-President of the United States Senate, and author of or sponsor for the Wade Bill, an anti-"Mormon" measure introduced into Congress during 1866. Other early visitors were General Philip H. Sheridan, Senator Roscoe Conklin, and William H. Seward, Lincoln's great Secretary of State. Seward, while in Utah, was the guest of Salt Lake City, and had a pleasant interview with President Brigham Young. The same is true of Senator Lyman Trumbull, who came with Colonel James H. Bowen and a party of commercial men from Chicago. During that summer the eccentric George Francis Train paid the Territory a visit. Early in the autumn Oliver Ames, President of the Union Pacific Railroad Company, arrived with a large party representing Union Pacific and Central Pacific interests. Their purpose was to settle the question of the removal of the railroad junction from Promontory to Ogden, a matter decided in November. Major Powell, the intrepid explorer of the Colorado River, reached Salt Lake City in September. The object of the visit of the Chicago Commercial Party, as explained by Colonel Bowen, was "to facilitate commercial relations with localities made tributary by the completion of the Union Pacific and Central Pacific Railroad." His complimentary allusion to the people of Utah for their "hearty, efficient, and timely aid to the companies charged with the completion of this gigantic national highway," was responded to in an appropriate manner by President Young.

The Mining Revival.—The impetus given by the railroad to the mining industry was marked. From the autumn of 1863 to the latter part of 1865, the period covered by the operations of General Connor and his fellow promoters, little had been accomplished, though a great deal of money had been expended. Many claims had been located, mines opened, and one or more smelting furnaces erected in Rush Valley; but owing to inexperience in smelting ores, scarcity of charcoal, and high rates of transportation, these enterprises languished and finally became bankrupt. The Knickerbocker and Argenta Mining fine and soaked for twenty-four hours in the cyanide solution, which dissolves the gold. The next thing is to get the gold from the solution, which is done by passing the liquid through a series of compartments filled with zinc shavings, or into a tank containing zinc dust and stirred by a jet of air. The dissolved gold now deserts the solution and clings to the zinc. The water is drawn off, more cyanide is shoveled into it, and it is again ready for use. Weak sulphuric acid is added to the zinc dust and shavings, and they are dissolved; the zinc solution is drawn off, leaving the gold behind in the fine slime. This mud is then filter-pressed, dried, ground, mixed with reagents, and melted. The gold sinks to the bottom and is finally run off into molds, forming real gold bricks worth from \$20,000 to \$30,000 apiece."

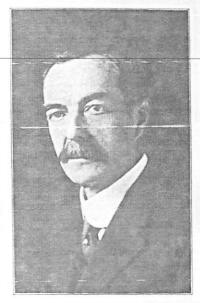
Railroads.—Earlier chapters of this history have dealt with the pioneer railroads, general and local, and with the advent of the Denver and Rio Grande Railroad, in 1883. The company that built the D. and R. G. has owned and operated for many years a branch line from Thistle Valley Junction through Sanpete Valley, as far south as Marysvale. It has also acquired or constructed branch roads to Bingham, Tintic, Park City, Heber, and the coal fields in Emery and Carbon counties.

The Oregon Short Line.-The Oregon Short Line Railroad Company was organized at Salt Lake City in February, 1897. Acquiring possession of the Utah Central, Utah Northern, Utah Southern, Utah Southern Extension, and Salt Lake and Western lines, it extended its system northward and southward. With its western connection, the Oregon-Washington Railroad and Navigation Company, it now reaches from Salt Lake City to Seattle, penetrating by numerous branches the farming and mining districts of Northern Utah, Idaho, Western Wyoming, Montana, and Eastern Oregon. The completion of the Yellowstone Park branch during 1908 greatly increased the tourist travel through the State. The Oregon Short Line is included in the Union Pacific system, of which E. E. Calvin is President. The General Passenger Agent of the Short Line is a Utah-born man, Mr. D. S. Spencer, of Salt Lake City.

Across the Lake.—On the Southern Pacific, between Ogden and Lucin, Utah, a remarkable piece of railroad engineering and construction was completed in 1903. It is known as the Great Salt Lake Cut-off, and is one hundred and three miles in length, about one-third of it built upon trestle work and fills-in over the waters of the Great Salt Lake. Formerly the track curved around the northern shore, and trains were

compelled to climb the long grades of Promontory Hill, one hundred and four feet to the mile. Helper engines were necessary, entailing an expense of fifteen hundred dollars a day. The Cut-off not only saves this heavy expense, but shortens the distance between Salt Lake City and San Francisco more than forty miles. The scheme for the improvement, which cost four million dollars, originated with President Collis P. Huntington, of the Southern Pacific Company, and the





E. E. CALVIN.

D. S. SPENCER.

plans, perfected after his death, were approved and executed by E. H. Harriman, when he took charge of the road.

The Salt Lake Route.—The Los Angeles and Salt Lake Railroad connects the capital of Utah with the principal cities and towns of Southern California. Comprising the old Utah-Nevada, Utah Southern, and Utah Southern Extension—the two latter acquired from the Oregon Short Line—"The Salt Lake Route," as it is popularly termed, crosses the State line at Uvada, in Iron County, and follows the early emigrant trail across the desert, passing through the great mining fields of Southern Nevada. The man whose millions made possible this enterprise was W. A. Clark, of Montana. There is a cut-off between Stockton and Lynn Junction, and branch lines from Lehi Junction to Boulter, from Tintic to the

Tintic Mining District, from Delta to Lucern, and from Milford to Frisco.

Western Pacific and Other Lines.—The Western Pacific Railway, built late in the nineties, connects Salt Lake City with San Francisco. Several miles of its roadbed extends across the southern end of the Great Salt Lake. The Salt Lake and Ogden (the Bamberger line) parallels the Oregon Short Line and Denver & Rio Grande through Davis County. The Salt Lake and Los Angeles, whose original destination was Southern California, operates between Salt Lake City and Saltair, on the eastern shore of the Lake. Interurban lines more recently constructed are the Salt Lake and Utah (the Orem road) between Salt Lake City and Payson; and the Ogden, Logan and Idaho, between Ogden and Preston.





SIMON BAMBERGER.

W. C. OREM.

Street Railways.—It was August, 1889, when the first electric cars appeared upon the streets of the Utah capital. Within a year the entire system of the Salt Lake City Railroad was changed from horse-power to electric traction. In 1902 the owners, A. W. McCune, Francis Armstrong, and others, bought out the Rapid Transit, a competing system, and this consolidation, merging into the Utah Light and Power Company, became known as the Utah Light and Railway Company. It was purchased by E. H. Harriman in 1906, and

improved. The system covers
Salt Lake City and runs to
Fort Douglas, Murray and
other suburban points. One of
the latest developments of this
kind is the Emigration Canyon
Railroad, built by Le Grand
Young and associates. Ogden,
Provo, Logan and Brigham all
have electric street railways,
the first named extending up
Ogden Canyon.

Telephone and Phonograph.

The telephone was introduced into Utah by A. Milton Musser, who also brought in the phonograph, and gave exhibitions of the powers of both instruments at his home town—Salt Lake City. The telephone came in February, 1878. Mr. Musser held the agency for Utah. He connected Salt Lake City and Ogden temporarily,



GEORGE Y. WALLACE.



LE GRAND YOUNG.

and established several small circuits at the capital. Since then great telephone systems have taken the field, and quick communication is common all over the State. The Bell Telephone Company began business at the Utah capital in 1880, with an exchange of less than one hundred subscribers. but soon acquired possession of two small isolated plants at Park City and Ogden, and opened its first long distance line between the former place and Salt Lake City. In 1902 there arose a strong competitor-the Utah Independent Telephone Company, whose system embraced the principal towns and mining camps throughout the State. Most of the small plants distant from the capital were absorbed by SMITH, John Fewson, the railroad

pioneer of Utah, is the son of Robert Smith and Mary Fewson Smith, and was born at Preston, Yorkshire, England, Jan. 1, 1834. He was baptized into the Church May 4, 1851, and ordained a Priest by Elder Hugh Findlay. and later an Elder. April 27, 1863, he married Christiana Venobles Vernon, eldest daughter of Joseph Venobles Vernon, and emigrated to Utah in May, 1863. They crossed the plains with ox-

Tork Canyon Nevous Guage

teams, arriving in Salt Lake City Oct. but afterwards were awarded to them 4th of the same year, where they es- by the courts. In 1891 he went to Mextablished their permanent home. In ico in the interest of John W. Young's the spring of 1864, Elder Smith was railroad speculation, and in 1895 exengaged as assistant engineer on the plored a route from El Paso, Texas, to



survey of the Union Pacific railroad. which position he filled until its completion in 1869. He next took part in the location and construction of the Utah Central railroad, from Ogden to Salt Lake City. He afterwards engaged in government surveys in Utah: was United States deputy mineral surveyor, and also conducted several extensive explorations across the Great Desert and mountain ranges lying between Utah and the Pacific coast in the interest of the Union Pacific and other railroads. In 1872 he located a narrowguage railroad in American Fork canyon, and in the following year was chief engineer of the Bingham Canyon rail road, also narrow gauge, and in 1875 was chief engineer and one of the principal promoters of the Utah and Pleasant Valley railroad, another narrowgauge road running from Springville to the coal fields in Pleasant valley, and which afterwards merged into the Rio Grande Western railway. In February, 1888, he was elected a member of the city council of Salt Lake City from the fourth precinct, and was re-elected in 1890, being the only member of the old council to be returned; and one of the unfortunate six, who, after having been duly elected, were denied their certificates which were wrongfully given to the Liberal party candidates.

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the "Mormon" colonies in Chihuahua, Mexico, for a New York syndicate. The road was built under the name of the "The Rio Grande Sierra Madra & Pacific Ry.." of which he was chief engineer and still holds that position. Elder Smith was ordained a High Priest April 4, 1896. He is the father of three sons, all now married, and one daughter who died in her infancy.